AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for treating a bone defect, comprising:

providing a non-stoichiometric, strongly bioresorbable ~~resorbable~~, synthetic poorly crystalline apatitic ~~(PCA)~~ calcium phosphate comprising less than 2% by weight carbonate ions incorporated into the calcium phosphate crystal structure, wherein said poorly crystalline apatitic calcium phosphate ~~that~~ is injectable or formable for a time greater than about 10 minutes at about 25°C, ~~and that~~ hardens within about 10 to 60 minutes at about 37°C, has ~~the poorly crystalline apatitic calcium phosphate having~~ a calcium to phosphate (Ca/P) ratio in the range of about 1.2 to 1.68, and an ~~further having the~~ X-ray diffraction pattern of naturally occurring bone, and

implanting the poorly crystalline apatitic calcium phosphate at an implant site requiring bone growth, whereby the implanted poorly crystalline apatitic calcium phosphate is resorbed with a resorption rate characterized in that, when placed in a rat intramuscular site, at least 1 g of the poorly crystalline apatitic calcium phosphate is at least 80% resorbed within one year, and bone is formed at the implant site.

2. (Cancelled)

3. (Previously Presented) The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate is implanted in the form selected from the group consisting of paste, putty and preshaped object.

4-6 (Cancelled)

7. (Previously Presented) The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate has an X-ray diffraction pattern comprising broad peaks at 2θ values of 26°, 28.5°, 32°, and 33°.

8. (Cancelled)

9. (Previously Presented) The method of claim 1, wherein the poorly crystalline apatitic calcium phosphate is characterized in that, when placed in a rat intramuscular site, at least 1 g of the poorly crystalline apatitic calcium phosphate is at least 80% resorbed within one month.

10. (Previously Presented) The method of claim 1, wherein the implant site comprises a tooth socket.

11. (Previously Presented) The method of claim 1, wherein the implant site comprises a non-union bone.

12. (Previously Presented) The method of claim 1, wherein the implant site comprises a bone prosthesis.

13. (Previously Presented) The method of claim 1, wherein the implant site comprises an osteoporotic bone.

14. (Previously Presented) The method of claim 1, wherein the implant site comprises an intervertebral space.

15. (Previously Presented) The method of claim 1, wherein the implant site comprises an alveolar ridge.

16. (Previously Presented) The method of claim 1, wherein the implant site comprises a bone fracture.

17-24 (Cancelled)

25. (Currently Amended) A method for embedding a prosthetic device, comprising:

introducing said ~~a~~ prosthesis at an implant site;

applying a paste to a surface of the prosthesis, the paste comprising a carbonated ~~an~~ amorphous calcium phosphate, a poorly crystalline apaptitic (PCA) calcium phosphate, and a physiologically acceptable fluid in an amount sufficient to provide a paste of formable or injectable consistency, wherein the paste is injectable or formable for a time greater than about 10 minutes at about 25°C and hardens within about 10 to 60 minutes at about 37°C, whereby the paste is converted at the implant site, in an endothermic process, to a hardened, non-stoichiometric, strongly bioresorbable, PCA calcium phosphate product comprising less than 2%

by weight carbonate ions incorporated into the calcium phosphate crystal structure, ~~in an endothermic process~~; and

allowing the hardened PCA calcium phosphate to be resorbed and replaced thereby with bone.

26. (Cancelled)